

# β-synuclein (K-20): sc-9564

## BACKGROUND

The synuclein family members, including α-synuclein (also designated NACP for non-β amyloid component) and β-synuclein, are predominantly expressed in the brain and are speculated to be involved in synaptic regulation and neuronal plasticity. α-synuclein is localized to neuronal cell bodies and synapses. α-synuclein was first identified as a component of Alzheimer's disease amyloid plaques. Abnormal platelet function in Alzheimer's disease has been demonstrated. During megakaryocytic differentiation α-synuclein was found to be upregulated, while β-synuclein is downregulated, indicating that coordinate expression of synucleins may be important during hematopoietic cell differentiation. A mutant form of α-synuclein has been found in patients with early onset Parkinson's disease.

## CHROMOSOMAL LOCATION

Genetic locus: SNCB (human) mapping to 5q35.2; Snca (mouse) mapping to 13 B1.

## SOURCE

β-synuclein (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of β-synuclein of human origin.

## PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9564 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

β-synuclein (K-20) is recommended for detection of β-synuclein of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

β-synuclein (K-20) is also recommended for detection of β-synuclein in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for β-synuclein siRNA (h): sc-36594, β-synuclein siRNA (m): sc-36595, β-synuclein shRNA Plasmid (h): sc-36594-SH, β-synuclein shRNA Plasmid (m): sc-36595-SH, β-synuclein shRNA (h) Lentiviral Particles: sc-36594-V and β-synuclein shRNA (m) Lentiviral Particles: sc-36595-V.

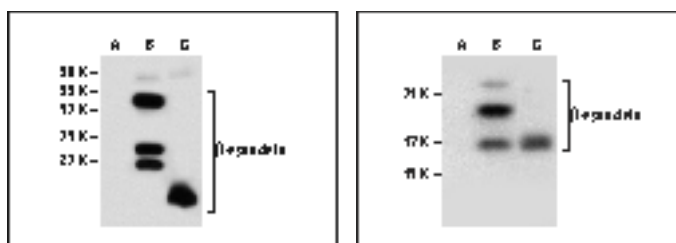
Molecular Weight of β-synuclein: 19 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or β-synuclein (h2): 293T Lysate: sc-159500.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



β-synuclein (K-20): sc-9564. Western blot analysis of β-synuclein expression in mouse brain extract: sc-157752 (29) and human β-synuclein brain extract: sc-153338 (35) 293T whole cell lysate and mouse brain tissue extract (35).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **α/β-synuclein (F-11): sc-514908** or **α/β-synuclein (Syn 202): sc-32281**, our highly recommended monoclonal alternatives to β-synuclein (K-20).